

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A method for forming an azo colorant, wherein a coupler having a leaving group at a coupling position thereof and a diazo compound are used, and the method has a faster coupling reaction rate constant, measured by mixing equivalent amounts of an ethyl acetate solution containing an 8×10^{-5} mole concentration of the diazo compound and an ethyl acetate solution containing an 8×10^{-3} mole concentration of the coupler and a base with a stopped flow measurement device and by measuring change over time of an absorbance of the produced colorant and applying the resultant value to the following formula (1), than an azo dye-forming reaction between the diazo compound and a coupler having a hydrogen atom at a coupling position thereof:

$$D\{\text{colorant}\}/dt = k \{\text{diazo compound}\} \quad \text{formula (1)}$$

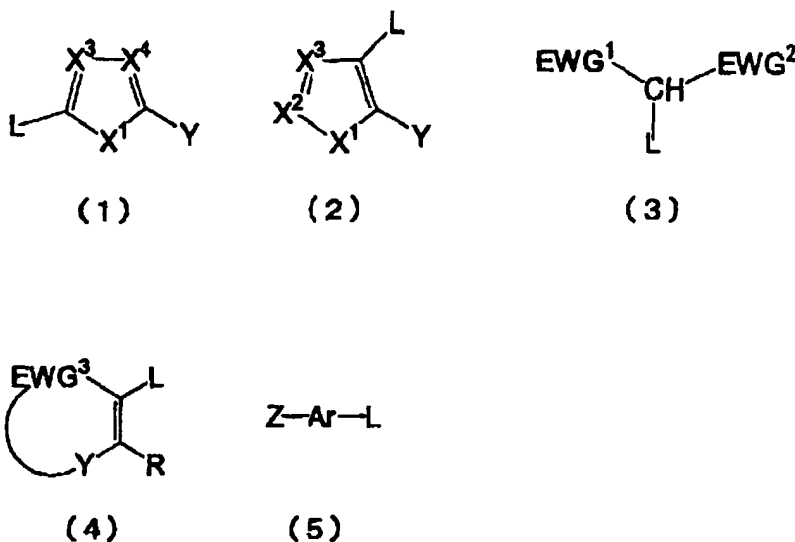
wherein k denotes the coupling reaction rate constant (s^{-1}), t denotes time (s), $\{\text{colorant}\}$ denotes a mole amount of the produced colorant, and $\{\text{diazo compound}\}$ denotes an initial mole amount of the diazo compound (mol).

2. (Previously Presented) A method for forming an azo colorant, wherein a coupler having a leaving group at a coupling position thereof and a diazo compound are used, and the method has a coupling reaction rate constant k , measured by mixing equivalent amounts of an ethyl acetate solution containing an 8×10^{-5} mole concentration of the diazo compound and an ethyl acetate solution containing an 8×10^{-3} mole concentration of the coupler and a base with a stopped flow measurement device and by measuring change over time of an absorbance of the produced colorant and applying the resultant value to the following formula (1), of at least 0.1 s^{-1} :

$$D \{ \text{colorant} \} / dt = k \{ \text{diazo compound} \} \quad \text{formula (1)}$$

wherein k denotes the coupling reaction rate constant (s^{-1}), t denotes time (s), $\{ \text{colorant} \}$ denotes a mole amount of the produced colorant, and $\{ \text{diazo compound} \}$ denotes an initial mole amount of the diazo compound (mol).

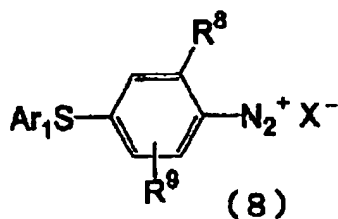
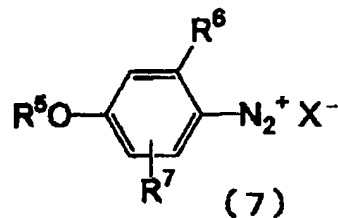
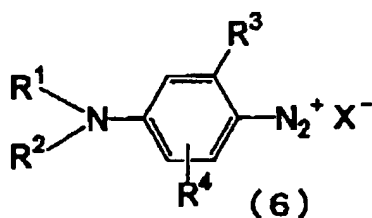
3. (Previously Presented) The method for forming an azo colorant according to claim 1, wherein the coupler has a structure represented by one of the following general formulae (1), (2), (3), (4), and (5):



in which X¹, X², X³, and X⁴ each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may

have a substituent; Ar represents a benzene ring, naphthalene ring, pyridine ring or quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represents an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring.

4. (Previously Presented) The method for forming an azo colorant according to claim 3, wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):

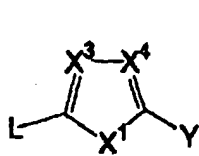


in which, in general formulae (6) and (7), R¹ and R² each represent one of a hydrogen atom and an alkyl group which may have a substituent; R¹ and R² may link with each other to form a

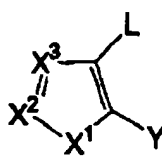
heterocycle; R^1 and R^2 cannot both be hydrogen atoms; R^3 represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and an arylsulfonyl group which may have a substituent; R^4 represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R^5 represents one of a hydrogen atom and an alkyl group which may have a substituent; R^6 and R^7 each represent one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

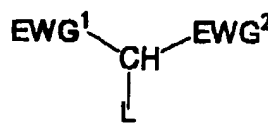
5. (Previously Presented) The method for forming an azo colorant according to claim 2, wherein the coupler has a structure represented by one of the following general formulae (1), (2), (3), (4), and (5):



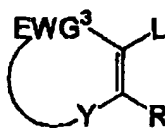
(1)



(2)



(3)



(4)

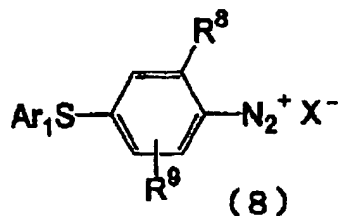
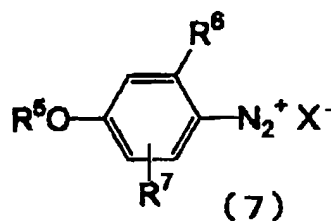
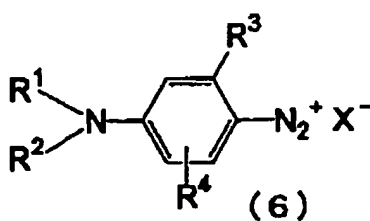


(5)

in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a

substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring.

6. (Previously Presented) The method for forming an azo colorant according to claim 5, wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):



in which, in general formulae (6) and (7), R^1 and R^2 each represent one of a hydrogen atom and an alkyl group which may have a substituent; R^1 and R^2 may link with each other to form a heterocycle; R^1 and R^2 cannot both be hydrogen atoms; R^3 represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and an arylsulfonyl group which may have a substituent; R^4 represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R^5 represents one of a hydrogen atom and an alkyl group which may have a substituent; R^6 and R^7 each represent one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

7. (Original) The method for forming an azo colorant according to claim 1, wherein a reducing agent is utilized.

8. (Original) The method for forming an azo colorant according to claim 1, wherein a base is utilized.

9. (Original) The method for forming an azo colorant according to claim 3, wherein, in the general formulae (1), (2), (3), (4), and (5), L is one of a halogen atom, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, and alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an arylsulfonyloxy group which may have a substituent, an acyloxy group which may have a substituent, a benzoyloxy group which may have a substituent, a dialkylaminocarbonyloxy group which may have a substituent, a diarylaminocarbonyloxy group which may have a substituent, an alkoxycarbonyloxy group which may have a substituent, an aryloxycarbonyloxy group which may have a substituent, an N-pyrazolyl group which may have a substituent, an N-imidazolyl group which may have a substituent, and an N-benzotriazolyl group which may have a substituent.

10. (Original) The method for forming an azo colorant according to claim 2, wherein a reducing agent is utilized.

11. (Original) The method for forming an azo colorant according to claim 2, wherein a base is utilized.

12. (Currently Amended) The method for forming an azo colorant according to claim 5, wherein, in the general formulae (1), (2), (3), (4), and (5), L is one of a halogen atom, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, and arylsulfonyloxy group which may have a substituent, and acyloxy group which may have a substituent, a benzoyloxy group which may have a substituent, a dialkylaminocarbonyloxy group which may have a substituent, a diarylaminocarbonyloxy group which may have a substituent, an alkoxycarbonyloxy group which may have a substituent, an aryloxycarbonyloxy group which may have a substituent, an N-pyrazolyl group which may have a substituent, an N-imidazolyl group which may have a substituent, and an N-benzotriazolyl group.

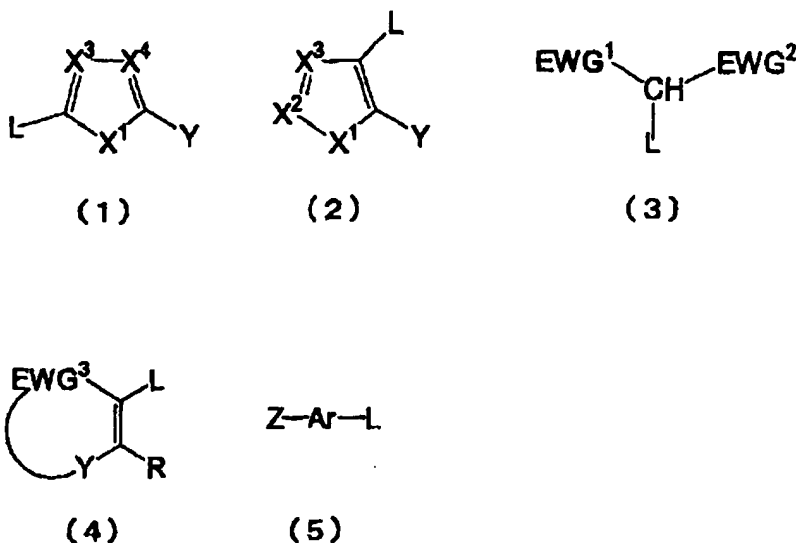
13. (Currently Amended) A recording material comprising a support and at least one recording layer disposed thereon containing a diazo compound and a coupler which reacts with the diazo compound for developing color, wherein the coupler has a leaving group at a coupling position thereof, and wherein the coupler is not a naphthol.

14. (Previously Presented) A recording material comprising a support and at least one recording layer disposed thereon containing a diazo compound and a coupler which reacts with the diazo compound for developing color, wherein the coupler has a leaving group at a coupling position thereof, the diazo compound and the coupler have a faster coupling reaction rate constant therebetween, measured by mixing equivalent amounts of an ethyl acetate solution containing an 8×10^{-5} mole concentration of the diazo compound and an ethyl acetate solution containing an 8×10^{-3} mole concentration of the coupler and a base with a stopped flow measurement device and by measuring change over time of an absorbance of the produced colorant and applying the resultant value to the following formula (1), than in a case of a coupler having a hydrogen atom at a coupling position thereof, and the coupling reaction rate constant k therebetween is at least 0.1 s^{-1} :

$D \{ \text{colorant} \} / dt = k \{ \text{diazo compound} \}$ formula (1)

wherein k denotes the coupling reaction rate constant (s^{-1}), t denotes time (s), {colorant} denotes a mole amount of the produced colorant, and {diaz compound} denotes an initial mole amount of the diazo compound (mol).

15. (Previously Presented) The recording material according to claim 13, wherein the coupler has a structure represented by one of the following general formulae (1), (2), (3), (4), and (5):

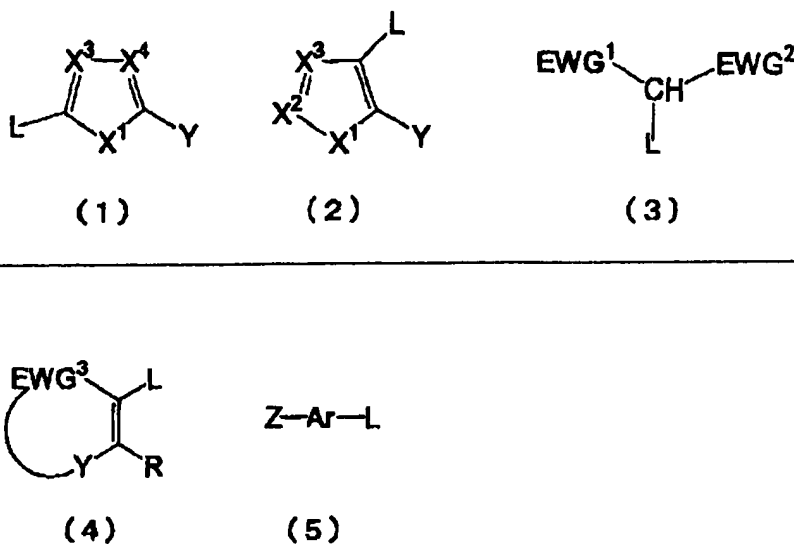


in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group

which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring.

16. (Currently Amended) [[The]] A recording material [[according to claim 15,]]
comprising a support and at least one recording layer disposed thereon containing a diazo
compound and a coupler which reacts with the diazo compound for developing color, wherein
the coupler has a leaving group at a coupling position thereof;

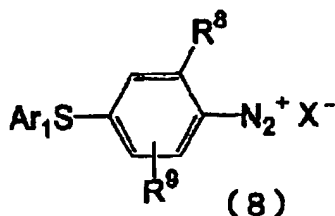
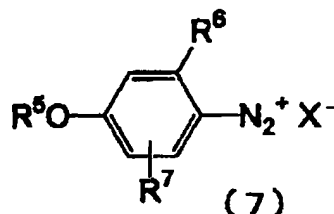
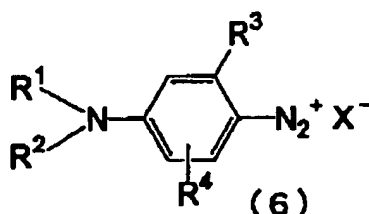
wherein the coupler has a structure represented by one of the following general formulae
(1), (2), (3), (4), and (5):



in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of

coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring; and

wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):



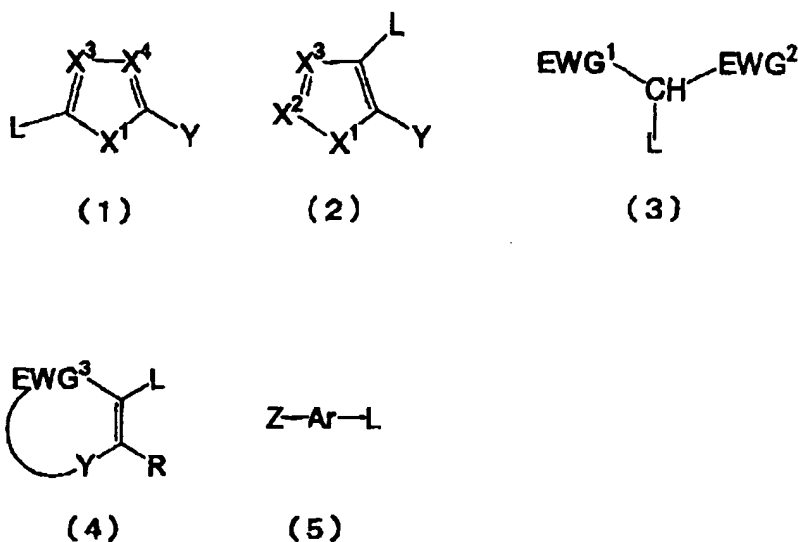
in which, in general formulae (6) and (7), R¹ and R² each represent one of a hydrogen atom and an alkyl group which may have a substituent; R¹ and R² may link with each other to form a heterocycle; R¹ and R² cannot both be hydrogen atoms; R³ represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and

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an arylsulfonyl group which may have a substituent; R^4 represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R^5 represents one of a hydrogen atom and an alkyl group which may have a substituent; R^6 and R^7 each represent one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

17. (Original) The recording material according to claim 13, wherein the diazo compound is contained in a microcapsule.

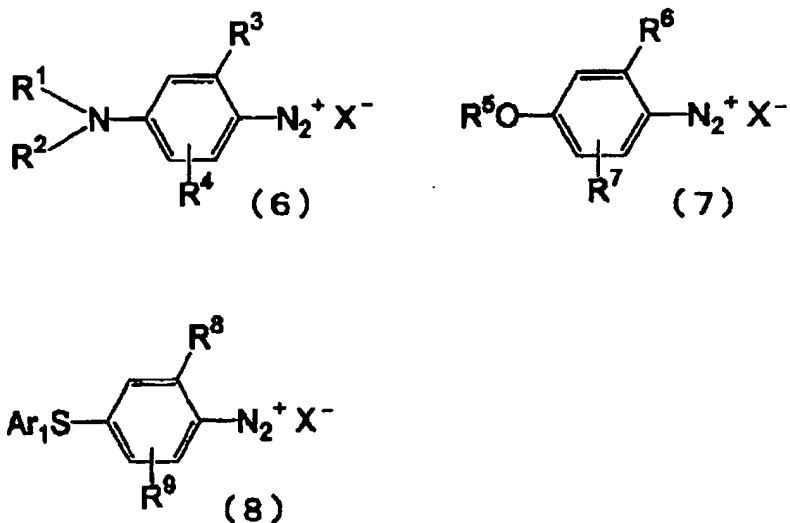
18. (Previously Presented) The recording material according to claim 14, wherein the coupler has a structure represented by one of the following general formulae (1), (2), (3), (4), and (5):



in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of

coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring.

19. (Previously Presented) The recording material according to claim 18, wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):



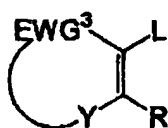
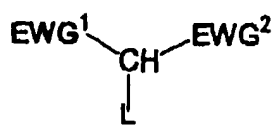
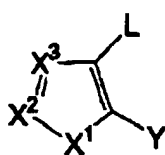
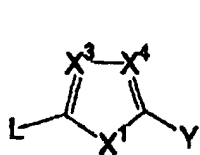
in which, in general formulae (6) and (7), R^1 and R^2 each represent one of a hydrogen atom and an alkyl group which may have a substituent; R^1 and R^2 may link with each other to form a heterocycle; R^1 and R^2 cannot both be hydrogen atoms; R^3 represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group

which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and an arylsulfonyl group which may have a substituent; R^4 represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R^5 represents one of a hydrogen atom and an alkyl group which may have a substituent; R^6 and R^7 each represent one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

20. (Original) The recording material according to claim 14, wherein the diazo compound is contained in a microcapsule.

21. (Currently Amended) A method for forming an azo colorant, wherein a coupler having a structure represented by one of the following general formulae (1), (2), (3), (4), and (5), and a diazo compound are used:

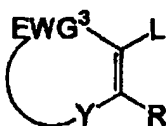
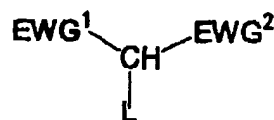
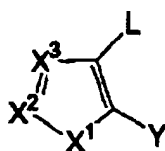
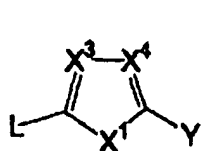



in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may

have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X¹ and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring; and

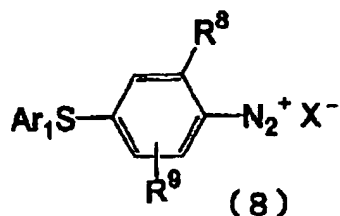
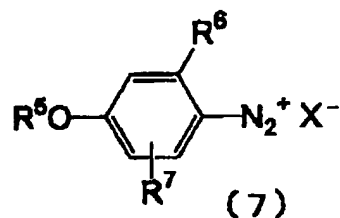
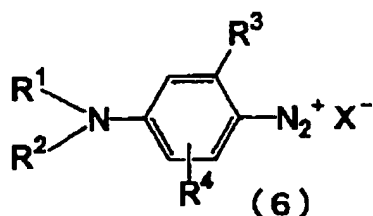
wherein the coupler is not a naphthol.

22. (Currently Amended) [[The]] A method for forming an azo colorant [[according to claim 21]], wherein a coupler having a structure represented by one of the following general formulae (1), (2), (3), (4), and (5), and a diazo compound are used:



 in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG¹, EWG² and EWG³ each independently represent an electron-attractive group; and X^1 and Y, EWG¹ and EWG², and Y and R may each link with each other to form a ring; and

wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):



in which, in general formulae (6) and (7), R^1 and R^2 each represents one of a hydrogen atom and an alkyl group which may have a substituent; R^1 and R^2 may link with each other to form a heterocycle; R^1 and R^2 cannot both be hydrogen atoms; R^3 represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and an arylsulfonyl group which may have a substituent; R^4 represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R^5 represents one of a hydrogen atom and an alkyl group which may have a substituent; R^6 and R^7 each represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which

may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

23. (Previously Presented) The method for forming an azo colorant according to claim 21, wherein a reducing agent is utilized.

24. (Previously Presented) The method for forming an azo colorant according to claim 21, wherein a base is utilized.

25. (Previously Presented) The method for forming an azo colorant according to claim 21, wherein, in the general formulae (1), (2), (3), (4), and (5), L is one of a halogen atom, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an arylsulfonyloxy group which may have a

substituent, an acyloxy group which may have a substituent, a benzoyloxy group which may have a substituent, a dialkylaminocarbonyloxy group which may have a substituent, a diarylaminocarbonyloxy group which may have a substituent, an alkoxycarbonyloxy group which may have a substituent, an aryloxy carbonyloxy group which may have a substituent, an N-pyrazolyl group which may have a substituent, an N-imidazolyl group which may have a substituent, and an N-benzotriazolyl group which may have a substituent.

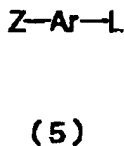
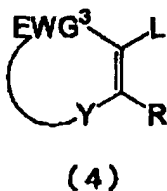
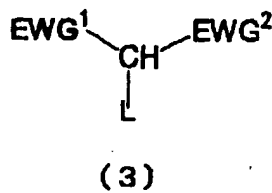
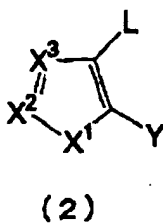
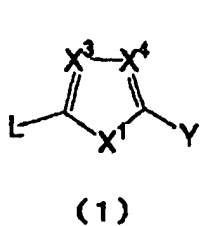
26. (Previously Presented) The method for forming an azo colorant according to claim 22, wherein a reducing agent is utilized.

27. (Previously Presented) The method for forming an azo colorant according to claim 22, wherein a base is utilized.

28. (Previously Presented) The method for forming an azo colorant according to claim 22, wherein, in the general formulae (1), (2), (3), (4), and (5), L is one of a halogen atom, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an arylsulfonyloxy group which may have a substituent, an acyloxy group which may have a substituent, a benzoyloxy group which may

have a substituent, a dialkylaminocarbonyloxy group which may have a substituent, a diarylaminocarbonyloxy group which may have a substituent, an alkoxycarbonyloxy group which may have a substituent, an aryloxycarbonyloxy group which may have a substituent, an N-pyrazolyl group which may have a substituent, an N-imidazolyl group which may have a substituent, and an N-benzotriazolyl group which may have a substituent.

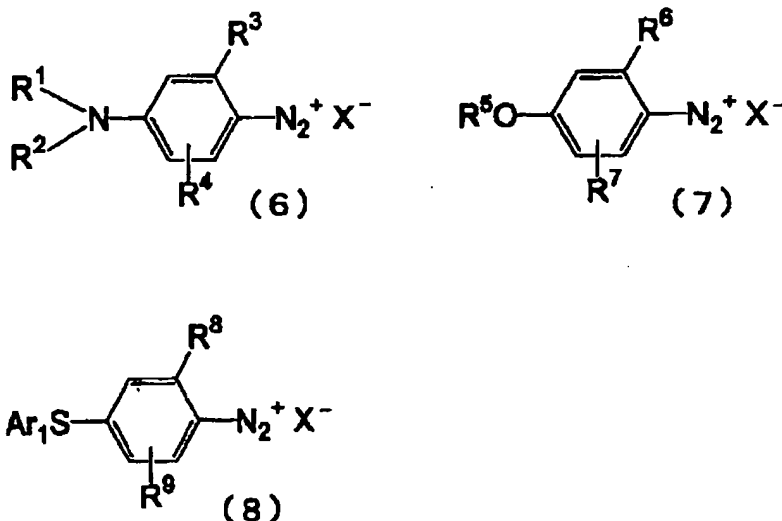
29. (Currently Amended) A recording material comprising a support and at least one recording layer disposed thereon containing a diazo compound and a coupler which reacts with the diazo compound for developing color, wherein the coupler has a structure represented by one of the following general formulae (1), (2), (3), (4), and (5):



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in which X^1 , X^2 , X^3 , and X^4 each independently represent an atomic group necessary for forming a five-membered aromatic heteroring; Y represents one of a hydroxyl group, an amino group which may have a substituent, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R represents one of a hydroxyl group, an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an amino group which may have a substituent, an alkylthio group which may have a substituent, and an arylthio group which may have a substituent; Z represents one of a hydroxyl group and an amino group which may have a substituent; Ar represents a benzene ring, a naphthalene ring, a pyridine ring or a quinoline ring, each of which may have a substituent; L represents a substituent that is releasable at a time of coupling with the diazo compound; EWG^1 , EWG^2 and EWG^3 each independently represent an electron-attractive group; and X^1 and Y, EWG^1 and EWG^2 , and Y and R may each link with each other to form a ring; and

wherein the coupler is not a naphthol.

30. (Previously Presented) The recording material according to claim 29, wherein the diazo compound is a compound represented by one of the following general formulae (6), (7), and (8):



in which, in general formulae (6) and (7), R¹ and R² each represent one of a hydrogen atom and an alkyl group which may have a substituent; R¹ and R² may link with each other to form a heterocycle; R¹ and R² cannot both be hydrogen atoms; R³ represents one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which may have a substituent, an arylthio group which may have a substituent, an alkylsulfonyl group which may have a substituent, and an arylsulfonyl group which may have a substituent; R⁴ represents one of a hydrogen atom, an alkyl group which may have a substituent, and an alkoxy group which may have a substituent; R⁵ represents one of a hydrogen atom and an alkyl group which may have a substituent; R⁶ and R⁷ each represent one of an alkyl group which may have a substituent, an alkoxy group which may have a substituent, an aryloxy group which may have a substituent, an alkylthio group which

may have a substituent, and an arylthio group which may have a substituent; R^6 and R^7 may be the same or different from each other; and X^- represents an acid anion, and

in the general formula (8), Ar^1 represents an aryl group which may have a substituent; R^8 and R^9 each represent one of an alkyl group which may have a substituent, an aryl group which may have a substituent, an alkoxy group which may have a substituent, and an aryloxy group which may have a substituent; R^8 and R^9 may be the same or different from each other; and X^- represents an acid anion.

31. (Previously Presented) The recording material according claim 29, wherein the diazo compound is contained in a microcapsule.

32. (Previously Presented) The recording material according claim 30, wherein the diazo compound is contained in a microcapsule.